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Section 2. REMARKS

Allowance of Claims 1-18 and 20-22

The allowance of claims 1-18 and 20-22 (page 3, August 10, 2005 Office Action) is acknowledged. Such allowance, however, was subject to requirement of clarification of the term "or." It is respectfully submitted that the claims are clear in reciting adjustment of the electrical power by determination using (i), (ii) or (iii), as alternatives¹, consistent with the fact that claims dependent thereunder recite specific ones of these alternatives (see, for example, claims 2-4 of dependent form under claim 1, wherein claim 2 recites (i), claim 3 recites (ii) and claim 4 recites (iii)²).

In view of the examiner's requirement, however, claims 1, 9, 18 and 20-22 have been amended

to insert the word "or" after " $\Delta W = r \cdot \frac{m}{\alpha_p \times t \times R_0} \cdot (R_s - R)$;"

so that the passage at issue, in each of such claims, reads as follows:

$$\text{"(i) } \Delta W = r \cdot \frac{m}{\alpha_p \times t \times R_0} \cdot (R_s - R); \text{ or}$$

$$\text{(ii) } \Delta W = r \cdot \frac{m}{\alpha_p \times t \times R_0} \cdot [R_s + R(0) - 2R]; \text{ or}$$

$$\text{(iii) } \Delta W = r \cdot \frac{m}{\alpha_p \times R_0} \cdot \left[f_s(R_s - R) - \frac{R - R(0)}{t} \right], \dots"$$

The claims, as thus amended, fully comport with the requirements of 35 USC 112, second paragraph.

Rejection of Claim 19 in the August 10, 2005 Office Action, and Traversal Thereof

In the August 10, 2005 Office Action, claim 19 was rejected under 35 USC 102 (e) over Smith et al. U.S. Patent Publication No. 20040086023 (hereafter "Smith").

¹ since it is common usage to specify a sequence of alternatives A, B, C as "A, B, or C"

² logically, then, claim 1 would not be read to mean that "items (i) and (ii) are chosen in lieu of item (iii)" (as discussed at page 2 of the August 10, 2005 Office Action), since dependent claims 2 and 3 would thereby be less specific (broader) than the claim (claim 1) from which they depend, in violation of 35 USC 112, fourth paragraph.

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Such rejection is traversed, and reconsideration of the patentability of such claim is requested.

"Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Assocs. v. Garlock*, 721, F.2d 1540, 220 USPQ 303 at 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

Smith fails, *inter alia*, to teach or suggest the use of "an electrical gas sensor element having a catalytic surface that effectuates exothermic or endothermic reactions of said target gas species at elevated temperatures," as recited in sub-paragraph (a) of claim 19.

Applicants' claimed methodology thus requires a sensor element that mediates a chemical reaction of the target gas species being monitored, but no such element is taught or suggested in Smith. Smith thus fails to teach all of the limitations³ of claim 19, and Smith consequently cannot anticipate claim 19.

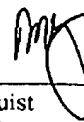
It therefore is respectfully requested that the rejection based on Smith be withdrawn.

CONCLUSION

Based on the foregoing amendments and distinguishing remarks, claims 1-22 are now in form and condition for allowance. Issue of a Notice of Allowance therefore is requested.

If any issues remain outstanding, the examiner is requested to contact the undersigned attorney at (919) 419-9350 to discuss same, in order that this application may be passed to issue at an early date.

Respectfully submitted,



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³ since Smith fails to teach or suggest the catalytic gas sensor element of sub-paragraph (a) of claim 19, it is unnecessary to consider any additional deficiencies in Smith relative to the subject matter of paragraphs (b)-(f) of the claim.

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